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What is claimed is:

- 1        1. A process for generating metrics for individual time segments, comprising steps for:
  - 2                (1) receiving in a usage measuring server usage data for use of a particular resource by a particular licensee and storing said usage data in an appropriate time compartment of a usage data buffer dedicated to storing usage data recording usage of a particular resource by a particular licensee for a particular time segment;
  - 3                (2) determining in any way that it is time to execute a distillation program for a time compartment of a usage data buffer that stores usage data for a licensed resource by a particular licensee;
  - 4                (3) launching said distillation program and pointing it to the time compartment usage data to be processed;
  - 5                (4) controlling said usage measuring server with said distillation program to retrieve at least the appropriate usage data for the time segment to be processed and, if necessary, retrieve the appropriate license terms and plug the data into the appropriate variables of the appropriate formulas of said distillation program and calculating the formulas to generate metrics for the time segment.

- 1        2. The process of claim 1 wherein steps 2 and 3 comprise launching said distillation program multiple times during each time segment, and wherein step 4 comprises retrieving only the usage data for each time period that was for usage after the time of the last execution of said distillation program.

- 1        3. The process of claim 2 wherein each set of metrics generated by execution of said distillation program is called an ingot and is assigned an ID, said IDs sequentially rising for each successive execution of said distillation program, and further comprising the step of controlling said usage measuring server to generate a summary report of the lastest metrics for each said time segment at some time during a second larger time segment by summing the metrics for each time segment in all the ingots generated up to the time of generation of said summary report.

- 1        4. The process of claim 1 wherein steps 2 and 3 comprise launching said distillation program multiple times during each time segment, and wherein step 4 comprises, for each said execution of

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3 said distillation program, restating the metrics for each said time segment by retrieving all the usage  
4 data for each time segment that was for usage before the time of this execution of said distillation  
5 program.

1       5. The process of claim 4 wherein each set of metrics generated by execution of said  
2 distillation program is called an ingot and is assigned an ID, said IDs sequentially rising for each  
3 successive execution of said distillation program, and further comprising the step of controlling said  
4 usage measuring server to generate a summary report of the lastest metrics for each said time  
5 segment at some time during a second larger time segment by retrieving the ingot which has the  
6 highest ID number for the last execution of said distillation program on the day said summary report is  
7 generated.

1       6. The process of claim 1 wherein steps 2 and 3 comprise launching said distillation program  
2 multiple times during each time segment, and wherein step 4 comprises determining for each time  
3 segment whether new usage data had arrived for that time segment since the time of the last  
4 execution of said distillation program, and ignoring any time segments for which no new usage data  
5 has been received, and for each time segment for which new usage data has arrived for usage since  
6 the last execution of said distillation program, retrieving all the usage data for for usage that occurred  
7 before the time execution of said distillation program.

1       7. The process of claim 6 wherein each set of metrics generated by execution of said  
2 distillation program is called an ingot and is assigned an ID, said IDs sequentially rising for each  
3 successive execution of said distillation program, and further comprising the step of controlling said  
4 usage measuring server to generate a summary report of the lastest metrics for each said time  
5 segment at some time during a second larger time segment by, for each time segment in the report,  
6 examining each said ingot that contains metrics for that day and selecting the ingot which has the  
7 highest ID number and extracting the metrics from that ingot for said summary report, and repeating  
8 this process for every other time segment covered by said summary report.

1       8. The process of claim 1 wherein steps 2 and 3 comprise launching said distillation program  
2 multiple times during each time segment, and wherein step 4 comprises determining from  
3 configuration data what method to use to retrieve and distill usage data for each time segment, and  
4 for each time segment retrieving the usage data needed by the method selected and converting it to  
5 metrics using said distillation program.

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1        9. The process of claim 8 wherein each set of metrics generated by execution of said  
2 distillation program is called an ingot and is assigned an ID, said IDs sequentially rising for each  
3 successive execution of said distillation program, and further comprising the step of controlling said  
4 usage measuring server to generate a summary report of metrics for a programmable number of or  
5 selected ones of said time segments at some programmable time during a second larger time  
6 segment with the programmable number or selected ones and the time of generation of said  
7 summary report being controlled by programmable configuration data.

1        10. A process for generating metrics for individual time segments, comprising:  
2              using an agent program to collect usage data on each resource licensed on a usage  
3 basis along with the time and data of each use or only the date, and sending that usage data to a  
4 usage measuring server either directly or indirectly;  
5              receiving the usage data in said usage measuring server and storing said usage data  
6 in the appropriate time compartment of the appropriate usage data buffer dedicated to storing  
7 usage data for a particular time segment;  
8              determining in any way that it is time to execute a distillation program for a time  
9 compartment of a usage data buffer that stores usage data for a licensed resource;  
10             launching said distillation program and pointing it to the time compartment usage  
11 data to be processed;  
12             controlling said usage measuring server with said distillation program to retrieve the  
13 appropriate usage data for the time segment to be processed and, if necessary, retrieve the  
14 appropriate license terms and plug the data into the appropriate variables of the appropriate  
15 formulas and calculate the formulas to generate metrics for the time segment; and  
16             storing the metrics so calculated in a metrics storage buffer segment dedicated to  
17 storing metrics for the time segment just processed.

1        11. A process for generating metrics for individual time segments, comprising:  
2              receiving usage data for use of a particular resource by a particular licensee in a  
3 usage measuring server and storing said usage data in an appropriate time compartment of an  
4 appropriate usage data buffer;  
5              determining in any way that it is time to execute a distillation program for a time  
6 compartment of a usage data buffer that stores usage data for a licensed resource;  
7              launching said distillation program and pointing it to the time compartment usage  
8 data to be processed;

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9                   controlling said usage measuring server with said distillation program to retrieve the  
10 appropriate usage data for the time segment to be processed and, if necessary, retrieve the  
11 appropriate license terms and plug the data into the appropriate variables of the appropriate  
12 formulas and calculate the formulas to generate metrics for the time segment; and

13                   storing the metrics so calculated in a metrics storage buffer segment dedicated to  
14 storing metrics for the time segment just processed; and

15                   launching a CSU distillation program and directing it to process the metrics generated  
16 for each time segment for a second larger time segment so as to generate CSU units that  
17 summarize usage or amounts owed for said second larger period.

1       12. A process for generating metrics for individual time segments, comprising:

2                   (1) receiving usage data for use of a particular resource by a particular licensee in a  
3 usage measuring server and storing said usage data in the appropriate time compartment of the  
4 appropriate usage data buffer;

5                   (2) determining in any way that it is time to execute a distillation program for a time  
6 compartment of a usage data buffer that stores usage data for a licensed resource;

7                   (3) launching said distillation program and pointing it to the time compartment usage  
8 data to be processed;

9                   (4) controlling said usage measuring server with said distillation program to retrieve  
10 at least the appropriate usage data for the time segment to be processed and, if necessary,  
11 retrieve the appropriate license terms and plug the data into the appropriate variables of the  
12 appropriate formulas and calculate the formulas to generate metrics for the time segment; and

13                   (5) storing the metrics so calculated in a metrics storage buffer segment dedicated to  
14 storing metrics for the time segment just processed;

15                   (6) repeating steps 1 through 5 for the usage data for every time segment stored in  
16 the time compartments of every usage data buffer of every licensee represented by data in a data  
17 structure of said usage measuring server using the appropriate distillation program for every  
18 usage data buffer; and

19                   (7) further comprising a step for combining, in any way appropriate to the license  
20 terms of a distributor or vendor represented by a data entry in said data structure of said usage  
21 measuring server, the metrics of multiple client licensees who are using resources made  
22 available to said client licensees by said distributor or vendor under license terms that may be  
23 different than the license terms of a license under which said distributor has been granted access  
24 to said resources so as to derive combined metrics for said distributor or vendor.

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1        13. The process of claim 12 further comprising steps of repeating steps 1 through 6 a  
2 plurality of times during every time segment with each said distillation program for a particular  
3 resource processing only usage data that was for uses that followed the time of the last execution of  
4 the same distillation program to generate updated metrics, and repeating step 7 for every distributor  
5 or vendor represented in said data structure who has multiple client licensees using the resources  
6 made available by said vendor or distributor so as to combine the new metrics so generated into new  
7 ingots of combined metric data.

1        14. The process of claim 12 further comprising steps of repeating steps 1 through 6 a  
2 plurality of times during every time segment with each said distillation program for a particular  
3 resource processing both usage data that was for uses that followed the time of the last execution of  
4 the same distillation program as well as usage data that was for uses that preceded the time of last  
5 execution of said distillation program but ignoring any time segments for which no new usage data for  
6 uses after the time of last execution of said distillation program, so as to generate updated metrics for  
7 all time segments for which new usage data has arrived for uses after the last execution of said  
8 distillation program, and repeating step 7 for every distributor or vendor represented in said data  
9 structure who has multiple client licensees using the resources made available by said vendor or  
10 distributor so as to combine the new metrics so generated into new ingots of combined metric data.

1        15. The process of claim 12 further comprising steps of repeating steps 1 through 6 a  
2 plurality of times during every time segment with each said distillation program for a particular  
3 resource processing all usage data that was for uses that preceded the time of execution of said  
4 distillation program for every time segment so as to generate restated metrics for every time segment  
5 regardless of whether new usage data did or did not arrive since the last execution of said distillation  
6 program, and repeating step 7 for every distributor or vendor represented in said data structure who  
7 has multiple client licensees using the resources made available by said vendor or distributor so as to  
8 combine the new metrics so generated into new ingots of combined metric data.

1        16. A usage measuring server apparatus programmed to:  
2              (1) receive usage data for use of a particular resource by a particular licensee  
3              represented by data entry in a data structure stored by said usage measuring server and storing  
4              said usage data in an appropriate time compartment of an appropriate usage data buffer  
5              dedicated to storing usage data for a particular time segment;  
6              (2) determine in any way that it is time to execute a distillation program for a time

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7 compartment of a usage data buffer that stores usage data for a licensed resource;  
8 (3) launch said distillation program and point it to the time compartment or  
9 compartments for which usage data is to be processed;  
10 (4) retrieve at least the appropriate usage data for the time segment or segments to  
11 be processed and, if necessary, retrieve the appropriate license terms and plug the data into the  
12 appropriate variables of the appropriate formulas and calculate the formulas to generate metrics  
13 for the time segment; and  
14 (5) store the metrics so calculated in a metrics storage buffer segment dedicated to  
15 storing metrics for the time segment just processed.

1 17. The server of claim 16 further programmed to:  
2 (6) repeat steps 1 through 5 for the usage data for every time segment stored in the  
3 time compartments of every usage data buffer of every licensee represented by data in a  
4 data structure of said usage measuring server using the appropriate distillation program for  
5 every usage data buffer; and  
6 (7) combine, in any way appropriate to the license terms of a distributor or vendor  
7 represented by a data entry in said data structure of said usage measuring server, the  
8 metrics of multiple client licensees who are using resources made available to said client  
9 licensees by said distributor or vendor under license terms that may be different than the  
10 license terms of a license under which said distributor has been granted access to said  
11 resources so as to derive combined metrics for said distributor or vendor.

1 18. The server of claim 17 further programmed to repeat steps 1 through 6 a plurality of  
2 times during every time segment with each said distillation program for a particular resource  
3 processing all usage data that was for uses that preceded the time of execution of said distillation  
4 program for every time segment so as to generate restated metrics for every time segment regardless  
5 of whether new usage data did or did not arrive since the last execution of said distillation program,  
6 and repeating step 7 for every distributor or vendor represented in said data structure who has  
7 multiple client licensees using the resources made available by said vendor or distributor so as to  
8 combine the new metrics so generated into new ingots of combined metric data.

1 19. A process for generating metrics for a distributor of one or more resources licensed to a  
2 plurality of client users and subdistributors, comprising:  
3 1) collecting and storing usage data for a particular resource of each client user and  
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4           each subdistributor and client user of a subdistributor in separate usage buffers;  
5               2) forming the union set of all usage data of all client users, subdistributors and client  
6           users of the subdistributors; and  
7               3) processing said union set with a distillation program linked to a data entry  
8           representing said resource for which said usage data was collected to output metrics for said  
9           resource for said distributor.

1           20. The process of claim 19 wherein step 3 is performed with a special distillation program  
2           which is linked to said resource for which said usage data was collected but which is not used to  
3           generate metrics for said client users, subdistributors or client users of said subdistributors.

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